

ABSTRACT

5 The present invention relates to a catalyst for homo-polymerization or co-polymerization of ethylene, or more particularly to a solid complex titanium catalyst for homo-polymerization or co-polymerization of ethylene, said catalyst being produced by preparing a magnesium solution by contact-reacting a halogenated magnesium compound with alcohol, reacting said solution with an ester compound having at least one hydroxy group and a silicon compound having an alkoxy group, and then reacting said solution with a mixture of a titanium compound and a
10 silicon compound. The catalyst of the present invention has high activity with superior hydrogen sensitivity.